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ABSTRACT OF THE DISCLOSURE

APPARATUS AND METHOD FOR ROUTING INTERNET PROTOCOL FRAMES OVER A SYSTEM AREA NETWORK

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An apparatus and method for an advanced tunneling technique to allow Internet Protocol (IP) frames to be routed through System Area Network (SAN) components with little or no overhead are provided. Furthermore, an apparatus and method for processing Internet Protocol (IP) version 6 datagrams over a SAN using basic raw and unreliable datagram (RawD and UD respectively) interfaces are provided. The apparatus and method allows a host channel adapter (HCA) to attach directly to an IP router which supports multiple link protocols, for example a router than attaches InfiniBand (IB) links and Ethernet links, and uses IP as the networking protocol on both. In this way, a SAN may be coupled to a LAN via a router with minimal hardware and overhead.